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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,582	09/29/2005	Takeshi Kanai	Q90437	4578
23373 7590 03/04/2009 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER				
TURNER, KATHERINE ANN				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/551,582

Applicant(s)

KANAI, TAKESHI

Examiner

Katherine Turner

Art Unit

1795

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-15 is/are pending in the application.
- 4a) Of the above claim(s) 7-11 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,12,13 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. The amendment filed January 5, 2009 has been entered. Claims 1, 2, and 4-15 are pending. Claims 1, 2, 4-7 and 12-13 are amended. Claim 3 has been cancelled. Claims 7-11 and 14 are withdrawn. Claims 14-15 are added. Receipt is acknowledged of a replacement drawing sheet.
2. The text of those sections of Title 35, U.S.C. code not included in this action can be found in the prior Office Action issued on October 3, 2008.

Election/Restrictions

3. Newly submitted claim 14 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Group I, Originally elected claim(s) 1-6, 12-13 and 15, drawn to a radiating member and method for producing a radiating member.

Group II, Newly added claim(s) 14, drawn to a radiating member with an upper portion, a lower portion, and a side connecting portion which is curved in a U-shape and extends beyond the length of the laminated cells.

The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the common technical feature in both groups is a radiating member with a plurality of first and second walls at substantially right angles to each other wherein at least one of the second walls

contacts a surface of a laminated cell. The first group has a first and second radiating member with the first radiating member between the second radiating member and a laminate cell, which is different from the second group which has one radiating member. The second group contains a radiating member with an upper portion, a lower portion, and a side connecting portion which is curved in a U-shape and extends beyond the length of the laminated cells, which is different from the first group which has does not require a second portion or a connecting portion. This element cannot be a special technical feature under PCT Rule 13.2 because the element is shown in the prior art.

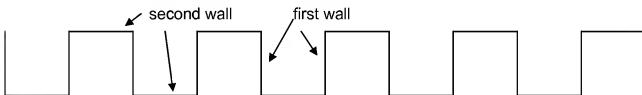
Yamashita et al. (JP 2003-068257, cited in IDS, refer to JPO machine translation for citation) discloses a covering wall (16, 40) which is a cooling passage wall (Applicant's radiating member) for a laminated cell, covered with a laminate material (drawings 1-8; paragraphs 1, 8 and 24), which is in contact with a surface of the laminated cell to cool the cells by transporting the heat from the cells to the air in the cooling passage (Applicant's radiate heat produced by the laminated cell) (paragraph 24), the covering wall (16) is arranged for close contact with a sheathed surface of the laminated cell (drawings 1-8; paragraphs 19 and 24), and the covering wall (16, 40) is made of a single plate aluminum material (paragraph 18). Yamashita et al. is silent as to the radiating member having a plurality of first wall, and second wall.

Nishimura et al. (JP 10-112301, cited in IDS, refer to JPO machine translation for citation) teaches the use of an air-cooling spacer (2) stuck on (Applicant's in close contact with) the surface of a battery, the air-cooling spacer (2) is a square wave shape made of a single plate aluminum material (paragraph 10). Nishimura et al. teaches that

the air-cooling spacer (2) has a large touch area with open air which improves the heat radiation, and the square wave shape is excellent when applying pressure (paragraph 10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute Yamashita et al.'s covering wall (16, 40) with Nishimura et al.'s square wave shaped air-cooling spacer (2), because the air-cooling spacer (2) has a large touch area with open air which improves the heat radiation, and the square wave shape is excellent when applying pressure, as taught by Nishimura et al. (paragraph 10).

Yamashita et al. modified by Nishimura et al.'s square wave shaped air-cooling spacer (2) (Applicant's radiating member) would have the following shape:



A square wave shaped air-cooling spacer (2) (Applicant's radiating member) has a plurality of first wall, and a plurality of second flat wall connected to the first wall and arranged substantially at right angles to the first wall.

4. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 14 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Drawings

5. The objections to the drawings are withdrawn in light of amendment.

Specification

6. The objections to the disclosure are withdrawn in light of amendment.

Claim Objections

7. The objections to claims 3-8 are withdrawn in light of amendment.

Claim Rejections - 35 USC § 112

8. Claims 12-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The newly amended claims include a fourth wall, there is no mention of a fourth wall in the specification or original claims (figures 7a, 7b, 8a-8d, and 9a-9d; paragraphs 20-22, 31, 32 and 71-73). The third wall in newly amended claims is cut, while in the specification and original claims the third wall remains uncut (figures 7a, 7b, 8a-8d, and 9a-9d; paragraphs 20-22, 31, 32 and 71-73). The first wall in the newly amended claims is not mentioned as being cut, while in the

specification and original claims the first wall is cut (figures 7a, 7b, 8a-8d, and 9a-9d; paragraphs 20-22, 31, 32 and 71-73).

Claim Rejections - 35 USC § 103

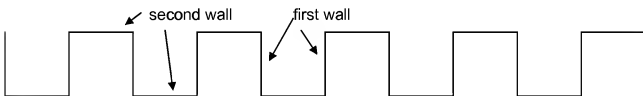
9. Claims 1-6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamashita et al. (JP 2003-068257, cited in IDS, please refer to JPO machine translation for citation) in view of Nishimura et al. (JP 10-112301, cited in IDS, please refer to JPO machine translation for citation).

Regarding claim 1, Yamashita et al. (JP 2003-068257, cited in IDS, refer to JPO machine translation for citation) discloses two covering walls (40) which are cooling passage walls (Applicant's radiating member) for a laminated cell capable of radiating heat produced by the cell (12) (drawings 1-8; paragraphs 1, 8, 24, 28, and 32), but Yamashita et al. is silent as to the two cover walls (40) (Applicant's radiating member) having a plurality of first wall and second wall at substantially right angles.

Nishimura et al. (JP 10-112301, cited in IDS, refer to JPO machine translation for citation) teaches the use of an air-cooling spacer (2) stuck on (Applicant's in close contact with) the surface of a battery, the air-cooling spacer (2) is a square wave shape made of a single plate aluminum material (paragraph 10), with a thickness in a desired range from 0.1mm to 2mm (Abstract). Nishimura et al. teaches that the air-cooling spacer (2) has a large touch area with open air which improves the heat radiation, and the square wave shape is excellent when applying pressure (paragraph 10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute Yamashita et al.'s covering walls (40) with Nishimura et al.'s single plate aluminum, with thickness range 0.1mm to 2mm, square wave shaped air-cooling spacer (2), because Nishimura et al. teaches that this air-cooling spacer (2) has a large touch area with open air which improves the heat radiation, and the square wave shape is excellent when applying pressure (paragraph 10).

Yamashita et al. modified by Nishimura et al.'s square wave shaped air-cooling spacers (2) (Applicant's radiating member) would have the following shape:



Yamashita et al. modified by Nishimura et al. teaches two square wave shaped air-cooling spacers (2) (Applicant's radiating member), positioned as in Yamashita et al.'s drawing 4, with the first and second two square wave shaped air-cooling spacers (2) (Applicant's radiating member) contacting each other and being between two cells (12) (Yamashita et al.'s drawing 4), both square wave shaped air-cooling spacers (2) (Applicant's radiating member) have a plurality of first wall, and a plurality of second flat wall connected to the first wall and arranged substantially at right angles to the first wall.

Regarding claim 2, Yamashita et al. modified by Nishimura et al.'s teaches two square wave shaped air-cooling spacers (2) (Applicant's radiating member) having alternating first walls and second walls (please refer to drawing of square shaped wave).

Regarding claim 4, Yamashita et al. modified by Nishimura et al.'s two square wave shaped air-cooling spacers (2) (Applicant's radiating member) are made of aluminum (Nishimura et al. Abstract, paragraph 10).

Regarding claim 5, Yamashita et al. modified by Nishimura et al.'s two square wave shaped air-cooling spacers (2) (Applicant's radiating member) have a thickness of 0.1 mm to 2 mm (Nishimura et al. Abstract), which overlaps Applicant's claims range of 0.1 mm or less.

In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990); *In re Geisler*, 116 F.3d 1465, 1469-71, 43 USPQ2d 1362, 1365-66 (Fed. Cir. 1997). See MPEP 2144.05.

Regarding claim 6, Yamashita et al. modified by Nishimura et al.'s two square wave shaped air-cooling spacers (2) (Applicant's radiating member) are a single plate material in the form of a square wave shape (drawing 1; paragraph 10).

Regarding claim 15, Yamashita et al. modified by Nishimura et al. teaches two square wave shaped air-cooling spacers (2) (Applicant's radiating member), positioned as in Yamashita et al.'s drawing 4, with the first and second two square wave shaped air-cooling spacers (2) (Applicant's radiating member) contacting each other and being between two cells (12) (Yamashita et al. drawing 4).

Response to Arguments

10. Applicant's arguments with respect to claims 1-6 and 15 have been considered but are moot in view of the new ground(s) of rejection.

11. *Applicant's principal arguments are:*

- (a) *Newly amended claims 12 and 13 remain allowable.*
- (b) *Newly added claim 14 discloses allowable subject matter.*

In response to Applicant's arguments, please consider the following comments.

- (a) Newly amended claims 12 and 13 have introduced new matter into the application. For discussion, please see paragraph 9.
- (b) Newly added claim 14 is withdrawn from consideration as being directed to a non-elected invention. For discussion, please see paragraphs 3-4.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Correspondence/Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine Turner whose telephone number is (571)270-5314. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dah-Wei Yuan can be reached on (571)272-1295. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. T./
Examiner, Art Unit 1795

/Dah-Wei D. Yuan/
Supervisory Patent Examiner, Art Unit 1795